

REMARKS

Reconsideration of this application is requested.

The Examiner has objected to the drawings for failing to comply with 37 C.F.R. §1.84(p)(4), because reference character "92" at the left side of Fig. 3 should be "42". Will the Examiner please approve the above change that is indicated in red in attached Fig. 3.

Claims 9-10 and 17 have been objected to because of certain listed informalities. The listed informalities have been corrected by this Amendment.

Claims 1-4, 6, 8, 11-14 and 16 have been rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by Riley, et al. (U.S. Patent No. 4,121,818).

Riley, et al. discloses the following in lines 39-62 of column 14:

The mounting plate 330 mounts the individual print heads 56 vertically for printing on flat signatures, within a label area 160 as seen in FIG. 5. As the signatures enter the printer area by a pair of spaced chains 90 having pushers 370 thereon, they are driven between a pair of spaced upper pressure belts 370 and a pair of spaced lower pressure belts 372, which corresponds generally to the auxiliary belt 346 in FIG. 3. Lower pressure belt 372 carries [sic] auxiliary pushers 374 thereon which engage the signatures in addition to the pushers 370.

Between the pair of lower pressure belts 372, a spring biased elevating mechanism 380, seen best in FIG. 4B, pushes the individual signatures up against the pressure plate 342. The pressure plate 342 consists of a pair of longitudinal bars which are spaced apart by cross-members 382, the gap between the longitudinal

bars forming a continuous longitudinal slot through which the inkjets from the print heads 56 are directed. The thicknesses of the books of signatures 34 will vary greatly, due to selective actuation of the feeders, but the elevator mechanism 380 maintains the top of the signature against the pressure plate 342 so as to provide an accurate, consistent distance to the print heads 56."

Riley, et al. does not disclose or anticipate a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form an ingest nip so that the tension of the lower belt provides a normal force between the mailpiece and the upper belt for providing a friction force to move the mailpiece into the printing area for print, as claimed in claims 1 and 11 as amended. The above provides a mechanism to maintain the correct distance between the substrate surface and the print head for a wide range of substrate thickness.

Claims 1, 5, 11 and 15 have been rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by Abrams, et al. (U.S. Patent No. 4,235,431).

Abrams, et al. discloses the following in lines 15-26 of column 6:

"The original documents are fed from the stack feeder 76 to the endless belt means 90 which defines the path for the documents that are fed from the stack or source 78 to the copier subassembly 34. The endless belt means 90 is of the type well known in the art and consists of a plurality of narrow endless belt strips 120 that are entrained over shafts 122, which structure is described in the above-referenced U.S. Patent No.

4,015,523 with respect to the belt strips 50 described therein and illustrated in FIG. 6 thereof and also with respect to the belt strips 22 described therein and illustrated in FIGS. 9 and 10 thereof."

No compliance or movement is shown between the shafts 122. Thus, there is nothing that gives way to accommodate for varying thickness objects. Abrams does not disclose or anticipate a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form an ingest nip so that the tension of the lower belt provides a normal force between the mailpiece and the upper belt for providing a friction force to move the mailpiece into the printing area for print, as claimed in claims 1 and 11 as amended. The above provides a mechanism to maintain the correct distance between a substrate surface and the print head for a wide range of substrate thickness.

Claims 9-10 have been rejected by the Examiner under 35 U.S.C.

§102(b) as being anticipated by Lemelson (U.S. Patent No. 4,675,498).

Lemelson discloses the following in lines 30-40 of column 9:

"From conveyor 15' the pieces are fed to a conveyor 19' corresponding to conveyor 19 of FIG. 1 and comprising a pair of power-driven endless belts 72 and 72' between which the aligned piece E is driven. Disposed adjacent the edges of belts 72 and 72' are devices 21', 22' and 24' corresponding in function to the recording material applicator 21, the photoelectric detector 22 and the recording transducer 24 of FIG. 1, each of which is so mounted to align its output with the edge or border of the card driven therepast as the conveyor 19' operates."

It is not apparent that belts 72 and 72' move. Thus, there is no allowance for compliance or something that gives way to accommodate for varying thickness objects. Lemelson does not disclose or anticipate a lower

looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form an ingest nip so that the tension of the lower belt provides a normal force between the mailpiece and the upper belt for providing a friction force to move the mailpiece into the printing area for print, as claimed in claim 9 as amended. The above provides a mechanism to maintain the correct distance between a substrate surface and the printer for a wide range of substrate thickness.

Claims 7 and 17 have been rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Riley, et al. and further in view of Wataya, et al. (U.S. Patent No. 5,828,387-A). Wataya, et al. discloses a speed detector which measures the speed of belt 54.

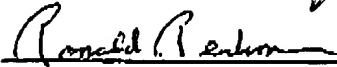
Riley, et al. has been discussed above.

Neither Riley, et al nor Wataya, et al, taken separately or together, discloses or anticipates a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form an ingest nip so that the tension of the lower belt provides a normal force between the mailpiece and the upper belt for providing a friction force to move the mailpiece into the printing area for print, as claimed in claims 7 and 17 as amended.

In view of the above, claims 1-20 as amended are patentable. If the Examiner has any questions, would he please call the undersigned at the

telephone number noted below.

Respectfully submitted,



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Version with Markings to Show Changes MadeIn the claims:

1. (Amended) A double belt transport system having an upstream end and a downstream end for moving a mailpiece from the upstream end into a printing area of a printer, wherein the mailpiece has a lower surface and an opposing upper surface to be printed by a print head located in the printing area, said transport system comprising:

an upper looping belt having a straight section covering the printing area, wherein the straight section defines a registration plane regarding the print head; and

a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form an ingest nip so that the tension of the lower belt provides a normal force between the mailpiece and the upper belt for providing a friction force to move the mailpiece into the printing area for printing.

9. (Amended) A method of moving a mailpiece from a ~~downstream~~ upstream end towards an ~~upstream~~ downstream end into a printing area, wherein the mailpiece has a surface to be printed by a printer in the printing area having a length, said method comprising the steps of:

providing an upper looping belt having a straight section running the length of the printing area for defining a registration plane for printing; and providing a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section of the lower looping belt and the straight section of the upper looping

belt form an ingest nip so that the tension of the lower belt provides a normal force between the mailpiece and the upper belt in order to provide a friction force to move the mailpiece into the gap towards the printing area so that the mailpiece surface is substantially located on the registration plane.

11. (Amended) A printer having an upstream end and a downstream end for printing a mailpiece on an upper surface thereof, said printer comprising:

a print head located above a printing area; and

a double belt transport system for moving the mailpiece from the upstream end into the printing area, wherein the mailpiece has a lower surface opposing the upper surface, and wherein the double belt transport system comprises:

an upper looping belt having a straight section covering the printing area, wherein the straight section defines a registration plane regarding the print head; and

a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form an ingest nip so that the tension of the lower belt provides a normal force between the mailpiece and the upper belt for providing a friction force to move the mailpiece into the printing area for printing.

17. (Amended) The printer of claim 11, further comprising a velocity measurement mechanism operatively connected to at least one of the looping belts so as to match printing speech of the print head to moving ~~speech~~speed of the mailpiece in the printing area.

Please add claims 18-20 as hereinabove set forth.